9(2)

SOY/107-59-4-11/45

AUTHORS:

Polyakov, M., Mitrofanov, V., Filyukov, L., Levintov,

TITLE:

New Mass-Production Radio Receivers (Novyye massovyye

radiopriyemniki)

PERIODICAL:

Radio, 1959, Nr 4, pp 12 - 15 (USSR)

ABSTRACT:

The Soviet radio industry has begun the mass-production of the "Zarya" and the "Strela" radio receivers. Although the same types of miniature tubes are used in both, their circuitry is different. Figure 1 shows the circuit diagram of the "Zarya" and Figure 2 that of the "Strela" receiver. They are designed for reception of radio stations working on medium (187-577) and long (723-2000) waves. They may be connected to any type of record player. The sensitivity of

these receivers at an output of not less than 0.5 watts and a sound pressure of 3-3.5 bar, is not less than 400 microvolts. The range of reproducible sound fre-

Card 1/2

quencies is from 150 to 5000 cps at a non-linear

SOV/107-59-4-11/45

# New Mass-Production Radio Receivers

distortion factor of 5 %. The selectivity is not below 17 db. The receivers are fed from 127 or 220 volt mains and have a power consumption of 40 watts. Both receivers contain two 6IIP tubes and one 6P14P tube. One of the 6I1P tubes is used in the converter and the hexode section of the second 6IlP tube functions as an IF amplifier, while the triode section works as a LF preamplifier. The 6P14P tube is used in the output stage. Dynamic loudspeakers 1-GD-9 are used in both types. The rectifier of the "Zarya" radio is composed of two DG-Ts27 diodes, while a 6Ts4P rectifier tube is used in the "Strela". The circuitry of the "Strela" is similar to the one used in the "Rekord-47" and "ARZ-49" receivers. There are 4 drawings, 1 diagram, 2 circuit diagrams, 2 tables and 1 Soviet reference.

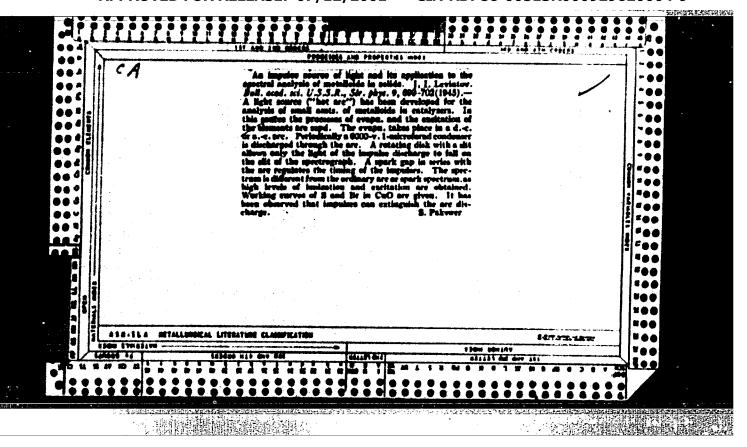
Card 2/2

LEVINTOV, Genekh Davidovich; GRAHOVSKAYA, I.E., red.; BABICHEVA, V.V., tekhn.red.

[Consumers guide to radio receivers] Pokupateliu o radiopriennikakh. Moskva, Gos.izd-vo torg.lit-ry, 1960. 81 p. (Radio--Receivers and reception) (MIRA 13:7)

LEVINTOV, I.I.

1. Institut teoreticheskoy i eksperimental noy fiziki AN SSSR. (Mesons-Scattering)





USER/Spectrographic Analysis
Light sources

Mar 1946

"Source of Light for the Spectral Analysis of Metalloids in Solid Bodies," I. I. Levintov, 4 pp Colloids - Electro - Cham. Sud, AS USSR, Theo care "Zhur Tekh Fiz" Vol XVI, No 3

Variation of various characteristics in metals with changes in composition, knowledge of which affords a method of determining unknown content. Graph showing variation in one spectral characteristic with varying carbon content. Connection diagrams of the light-source apparatus.

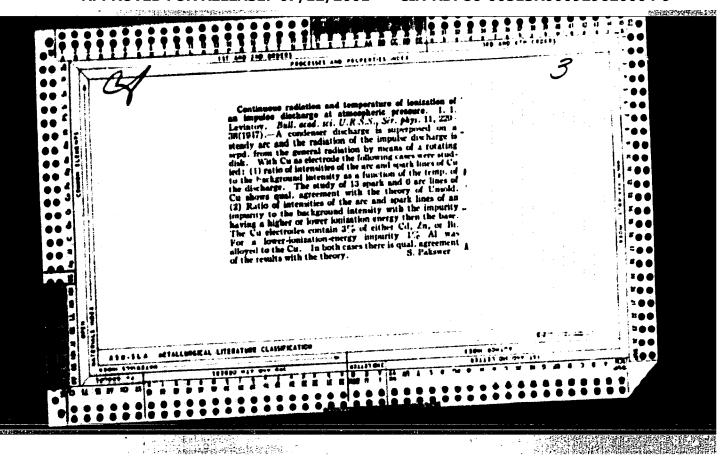
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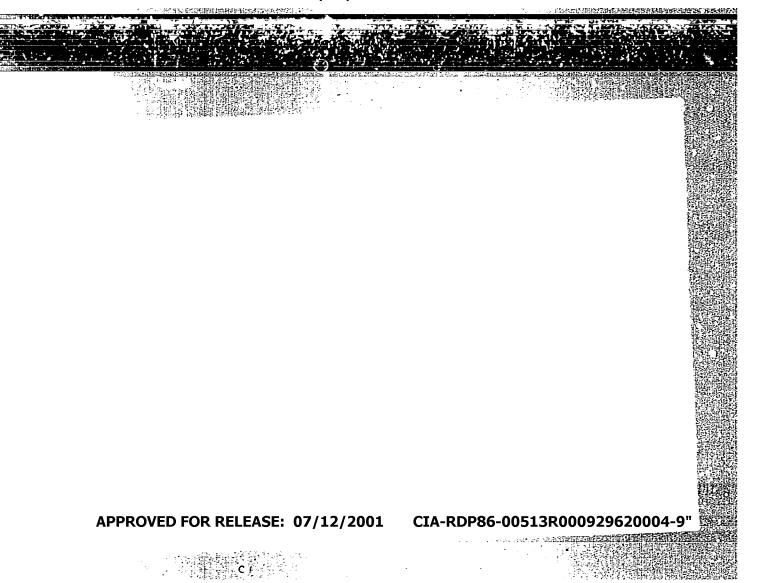
Cand. Physicomath. Sci. LEVINTOV, 1. 1.

Dissertation: "Impulse Source of Light for Spectrum Analysis of Metalloids, and Optical Investigations of Impulse Discharge." Inst. of Physical Chemistry, Acad. Sci. USSR, 23 Jan 1947.

SO: Vechernyaya Hoskya, Jan. 1947. (Project #17836)

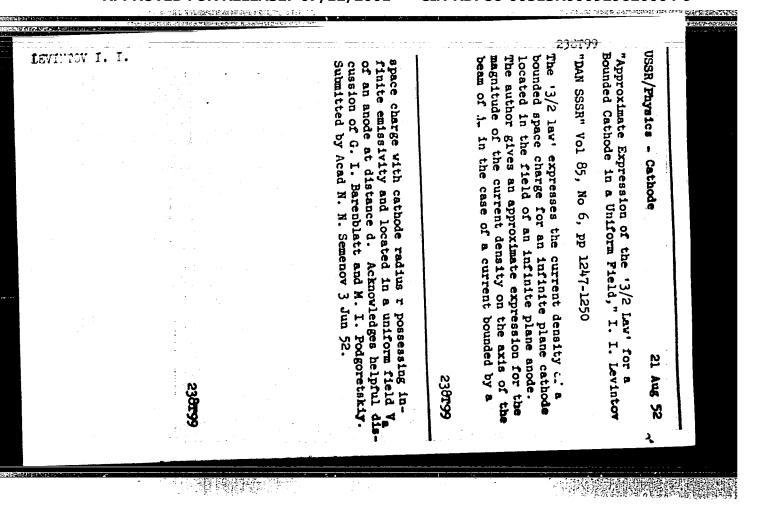


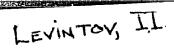
TEATIMA	, 1. I.	 ·			<del></del>	P	34773	 _
		of making rough estimates of the marginal sensitivity of analysis of metalloids and points out the errors of this system, thus showing that it is preferable to use a more exact method of calculation.	USSE/Physics (Contd) Jul 1948	As a result of some of the previous work of the suthing it is now possible to evaluate the marginal sensitive ity of the analysis of metalloids in new sources and therefore, possible to arrive at a more rational electorical system and methods of analysis for the solu- Ution of practical problems. The author shows methods	"Thur Tokh Fiz" Vol IVII, No 7	"Spectrum Analysis of Metalloids in a Hot Arc," I. Levintor, Institute of Physical Chemistry, Academy Sciences of the USSR, 8 pp	USER/Physics Spectrum Analysis Metals - Spectrographic Analysis	



#### "APPROVED FOR RELEASE: 07/12/2001

#### CIA-RDP86-00513R000929620004-9





USSR/Physics - Polarisation

Card 1/1 Pub. 118 - 3/9

Authors

: Levintor, I. I.

Title

: Polarisation of fast protons and neutrons

Periodical : Usp. fis. nauk 54/2, 285-314, Oct 1954

Abstract: Problems dealing with the polarization of fast nuclons (protons or neutrons) are considered in the light of the spin-orbit interaction of particles. In connection with the problems of nuclon polarization, the problems of the filling-up of nuclear shells are also considered, aspecially those which deal with the order of filling the orbital shells, because the filling greatly depends on the spin-orbit interaction. Sixteen references: 2-USSR (1944-1952).

Tables; diagrams; graphs.

Institution: ...

Submitted : ...

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513P000030

# LEVINTON, I.I.

USSR/ Nuclear Physics

Pub. 22 - 13/48 Gard 1/1

Authors

: Levinton, I. I.

Title

Polarization of very-fast neutrons during diffusion on heavy nuclei

Periodical : Dok. AN SSSR 98/3, 373-376, Sep 21, 1954

Abstract

: An evaluation of polarization effects in quasi-classical approximation, during the diffusion of neutrons on heavy nuclei with 0-spin, is presented. The origination of polarization during classical diffusion is explained. It was established that polarized particles (1) diffused on the left side by-rass the center of diffusion from the right (in the case of attraction forces) and, consequently, acquire a parallel orientation, whereas particles polarized (1) and diffused in the very same direction acquire an anti-parallel orientation. Eight references: 4-USA; 3-USSR and 1-Italian (1948-1954). Table.

Institution : Academy of Sciences, USSR, Institute of Chemical Physics

Presented by:

Academician V. N. Kondratyev, June 5, 1954

CIA-RDP86-00513R000929620004-9" **APPROVED FOR RELEASE: 07/12/2001** 

## LEVINTOV. 1.1.

Ucca/Physics - Nuclear Physics

Pub. 22 - 14/51 Card 1/2

1 Levintov, I. I. Authors

Connection between polarization, angular dispersion cut dependence and the Title magnitude of spin-orbital reaction

Dok. AN SSSR 101/2, 249-252, Mar 11, 1955 Periodical

A proof is given that the polarization of fast nuclons in their elastic dispersion over nuclei does not depend on the character of dispersion Abstract nuclei or on energies of the nuclons, and can be expressed as follows:  $P(\Theta) = \alpha \frac{d \ln b(\Theta)}{d \theta} n,$ 

Academy of Sciences at the USSR, Institute of Chemical Physics Institution :

Academician N. N. Semenov, January 15, 1955 Presented by:

> CIA-RDP86-00513R000929620004-9" **APPROVED FOR RELEASE: 07/12/2001**

Periodical : Dok. AN SSSR 101/2, 249-252, Mar 11, 1955

Card 2/2 Pub. 22 - 14/51

Abstract : were P (G) is polarization, & (G) the spin dispersion cut and n normal (vector) to the dispersion-cut plane; & and other quantities can be determined through the given formulas. Ten references: 8 English, 2 USSR

(1949-1954). Graph.

LEVINTON, 11

USSR/Physics

0ard 1/2

Pab. 22 - 11/45

Authors

: Levintov, I. I.

Title

A relationship between the polarization, cross-section (dispersion) and spin-orbital interaction in a quasi-classical approximation

Periodical :

Dok. AN SSSR 103/2, 215-218, Jul 11, 1955

Abstract

A derivation of the formula standing for the quasi-classical expression of the relationship between the polarization, dispersion (cross-section) and an effective magnitude of the spin-orbital potential  $\propto$  is presented. The subject derivation was accomplished on the following assumptions:

1) A nucleus was described by a complex potential with the spin-orbital addition  $\frac{\partial V}{\partial r}(1,0)$ , where the V is the real part of a potential which

Institution : The Acad. of Sc., USSE, Institute of Physical Chemistry

Presented by : Academician N. N. Semenov, Hay 10, 1955

Ourd 2/2

Pub. 22 - 11/45

Periodical

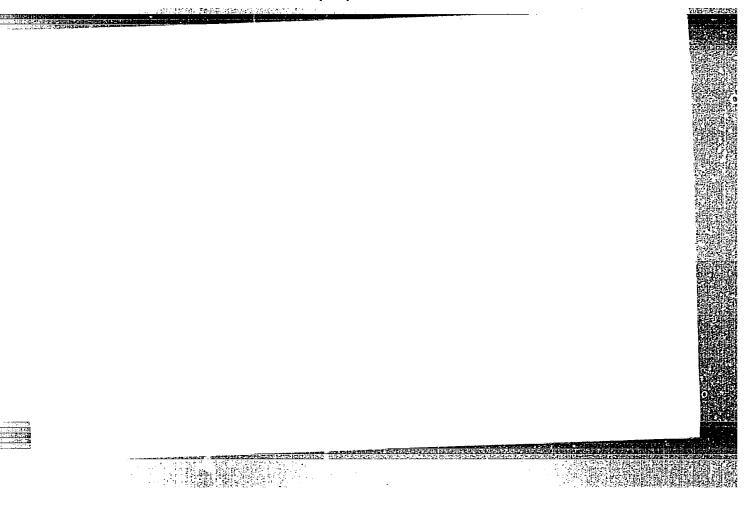
: Dok. AN SSSR 103/2, 215-218, Jul 11, 1955

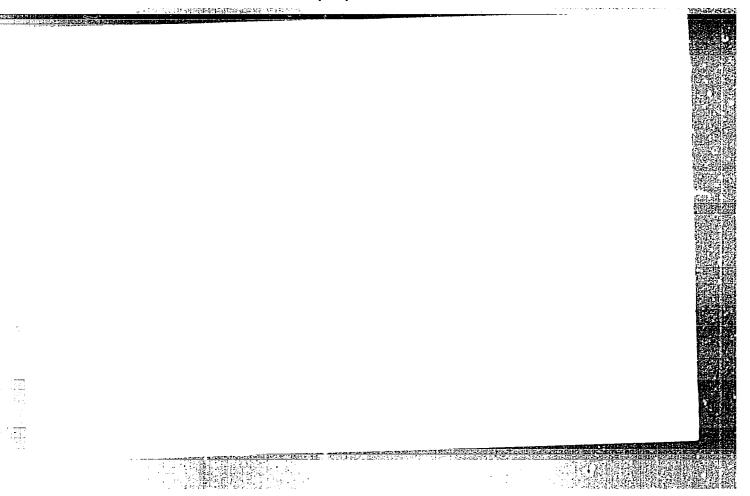
Ubstract

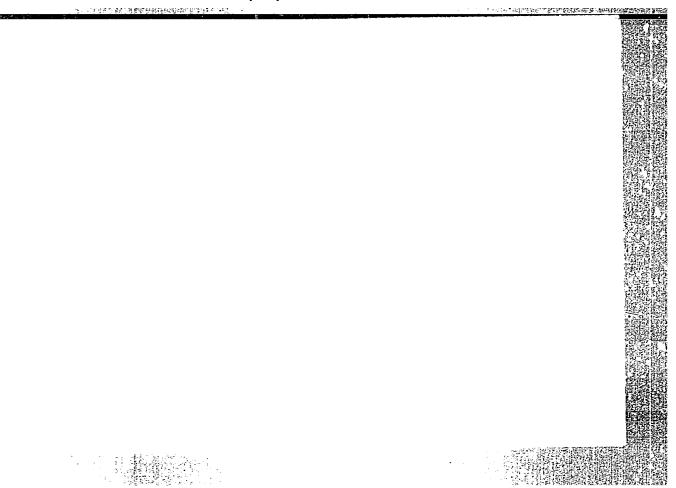
: has the whape of a cavity with a flat bottom with not very diffused edges; 2) the spin orbital addition was considered as a disturbance, i.e., the

α (1, 6) € 1. Ten references: 4 USSR and 6 USA (1950-1955).

CIA-RDP86-00513R000929620004-9" APPROVED FOR RELEASE: 07/12/2001







USSR/Nuclear Physics - Instruments and Installations. Methods of Measurement and Investigation

C-2

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 33829

Author: Lapitskiy, Yu. Ya., Levintov, I. I., Slivkov, I. N., Shamshev, V. N.

Institution: Institute of Chemical Physics, Academy of Sciences USSR

Title : Focusing System of Ionic Accelerating Tube

Original

Periodical: Zh. tekhn. fiziki, 1956, 26, No 4, 733-739

Abstract: A method is given for the calculation of an ion-optical system of a 6-section accelerating tube of one Mv and the experimental results are listed. The principal focusing system consists of 2 electrodes, located directly past the output opening of an ion source. This system produces a converging beam of ions. The position of the point of convergence can be varied over a wide range by varying the potential V1 on the first of the above electrodes. Thus, the variation of the value of V1 (over a range from 8 to 32 kv) is a convenient

Card 1/2

USSR/Nuclear Physics - Instruments and Installations. Methods of Measurement and Investigation

C-2

Abst Journal : Referat Zhur - Fizika, No 12, 1956, 33829

method of regulating the diameter of the beam on the target. A setup is described for measuring the ion current and for visually observing the beam near the target. The developed focusing system has made it possible to obtain at the output of the tube a conveniently adjustable ion beam with a current of up to 800  $\mu$ a continuously and up to 2 ma in pulses.

Cand 2/2

SUBJECT

USSR / PHYSICS

CARD 1 / 2

PA - 1374

AUTHOR TITLE

FERIODICAL

LEVINTOV, I.I.

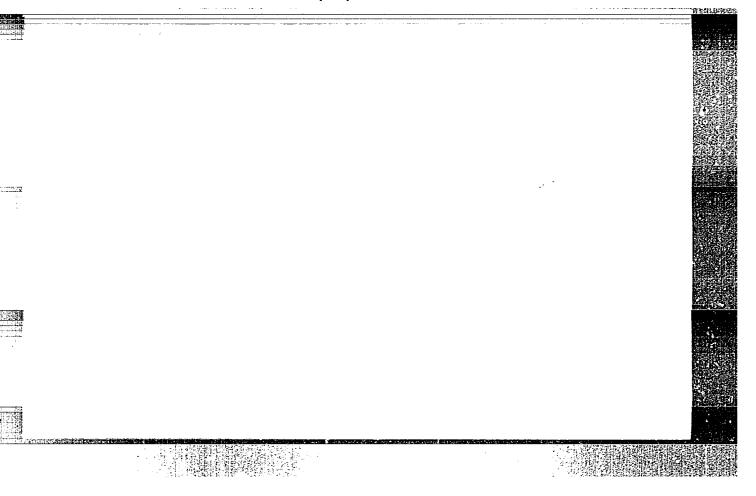
On the Amount of Nuclear Spin-Orbit Interaction. Zurn.eksp.i teor.fis, 30, fasc.5, 987-989 (1956)

Issued: 8 / 1956 reviewed: 10 / 1956

The author names all relative quantities of the moduli  $V_2/V_1$  of the central and of the spin-orbit potential on the basis of all data known to him.  $V_2/V_1$  can be determined from the data on polarization at high energies (100 to 300 MeV) without determining the density distribution  $\varrho(r)$  of the nucleons in the nucleus, on the assumption that the spin-orbit correction makes only a small contribution towards the phase. One finds  $V_1/V_2 = k^2\theta_m$ , where  $\theta_m$  is the angle under which the maximum polarization  $P_m$  is observed. The average value of  $V_2/V_1$  is  $3.5 \cdot 10^{-27}$  cm<sup>2</sup>. The estimation of  $V_2/V_1$  from the data on scattering at low energies and from those on levels and shells requires certain conditions concerning the form of  $\varrho(r)$ , but it can in some cases be carried out correctly. The levels of He<sup>5</sup> and Li<sup>5</sup>: The experimentally well determined course of the phases  $P_{1/2}$  and  $P_{3/2}$  in the case of scattering of nucleons by He<sup>4</sup> within the energy range of from 1 - 15 KeV can be computed with great exactitude by putting  $\varrho(r)$  exp(-r<sup>2</sup>/a<sup>2</sup>). The potential which agrees best with the experiment is given, so that  $V_2/V_1 = 3.3 \cdot 10^{-27} \text{cm}^2$  is obtained. The one-particle doublet levels of 0<sup>17</sup> and Pb<sup>209</sup>: By solving the

Zurn.eksp.i teor.fis,30, fasc.5, 987-989 (1956) CARD 2 / 2 Schroedinger equation for the potential with plane bottom and smeared out edge the author alleges to have obtained a more exact result than R.J.BLIN-STOYLE, Phil. Mag. 96, 977 (1955) and for  $V_2/V_1$  and  $V_2/V_1$  the first perturbational approximation is explicitly given. A table shows the values of  $V_2/V_1$  for smeared out  $\delta=0,57(0^{17})$ ,  $\delta=0,29(Pb^{209})$  and  $V_1=50$  MeV. The order of filling the levels in the shells computed with the help of a potential between the oscillator potential and the rectangular well furnishes  $V_2/V_1 = 4.10^{-27}$  cm<sup>2</sup>. The relative amount of the spin orbit potential remains constant within wide limits if the energy of nucleons and the dimensions of the nucleus change, and amounts approximatively to 3,5.10-27 cm2 This may be explained by interpreting the effective nuclear potential as the average potential of the nucleon forming the nucleus. In the case of such an averaging over the closed shells the forces (e.g. tensor forces) which depend on the product of the spin of the outer nucleon and the nucleons in the nucleus make no contribution in first approximation. The existence of a strong spin orbit interaction is an argument in favor of the existence of forces of the kind  $V(\vec{r}) \left\{ \vec{1}(\vec{\sigma}_i + \vec{\sigma}_i) \right\}$ .

INSTITUTION: Institute for Chemical Physics of the Academy of Science in the USSR.



LEVINTOV, I. I. Doc Phys-Math Sci -- (hiss) "On the Nuclear Spin-Orbit Interaction." Mos, 1957. 15 14 pp 22 cm. (Academy of Sciences USSR), 125 copies (KL, 18-57, 93)

- 1-

LEVINTOV, 1. 1. (\cad. Sci. USDR)

"On the Radius of the & Particle,"

paper submitted at the All-Union Conf. on Nuclear Reactions in Medium and Low Energy Physics, Moscow, 19-27 Nov 57

invirior, T.t., miller, a.v., shareev, v.e.

"Measurement of Polarization of (DAT) Heutrons at Ed = 1800 key

USSR Acad. Sci. and Inst. of Chemical Physics

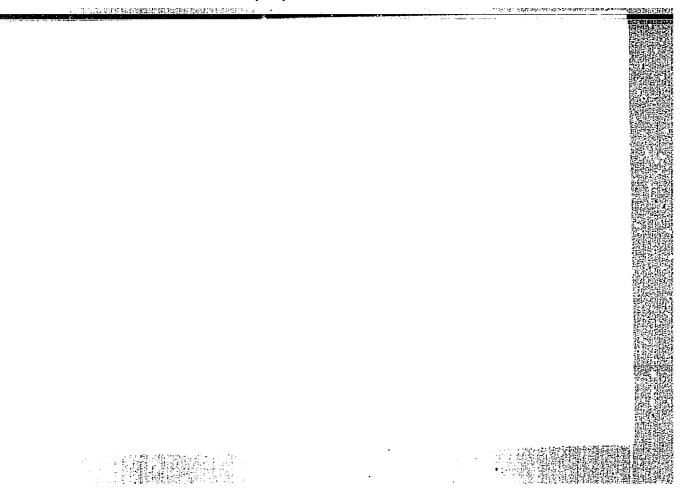
paper submitted at the A-U Conf. on Nuclear Reactions in Medium and Low Energy Physics, Moscow, 19-27 Nov 57.

LEWINTON, 1. 1. MALYOKKO, A. H., HIKOLICHTY, V. G., YERCHILIK, I. V.

\*Heasurement of Polarization of Frotons from(D D) Reaction \*

Inst. of Chemical Physics

paper submitted at the A-U Conf. on Nuclear Reactions in Medium and Low Energy Physics, Moscow, 19-27 Nov 57.



LEVINTOV, I. I., MILLER, A. V. and SHAMSHEV, V. N.

"A New Method of Measurement of Neutron Polarisation and n-Heli Phase Analysis," Nuclear Physics (Amsterdam), 3, No.2, p. 221, 1957

Inst. Chemical Phsylcs, AS USSR

English translation

LEVINTOV, I. I., MILLER, A. V., TARUMOV, E. Z. and SHAMSHEV, V. N.

\*Dependence of (D + D) Neutron Polarisation on Deuteron Anergy, Nuclear Physics (Amsterdam), 3, No.2, p. 237, 1957

Inst. Chemical Physics, AS USSR'

English translation

AUTHOR TITLE LEVINTOV I.I., MILLER A.V., SHAMSHEV V.N.

A new method for measurement of neutron polarization and phase analysis of n - He4. (Novyy metod izmereniya polarisatsii neytronov srednykh energiy i fasovoy analiz rasseyaniya n-He4. Russian.)

PERIODICAL

Zhurnal Eksperim. i Teoret Fiziki 1957, Vol 32, Nr 2,

pp 274 - 283 (USSR).

Reviewed: 6/1957

ABSTRACT

Received: 5/1957
The measuring method mentioned in the title has an efficiency of ~1 in the energy domain of 1 - 20 MeV and practically no background of a counter. As an intermediary result it rendered a precise description of the phase analysis of scattering in - He4 and the measuring of the polarization of (GD-D)-neutrons for thick and thin targets within the energy domain between thick and thin targets within the energy domain and the scattering material He4 was used by the authors in their analyzer. Polarization properties of this nucleus are discussed in detail. Thin propertionality counters filled with helium served as measuring devices. The reaction (D+D) served as a source of the polarized neutrons.

Measuring of the azimuthal asymmetry of the scattering n-He4.

The measuring device is discussed on the basis of a sketch.

CARD 1/2

PA - 2672

A new method for measurement of neutron polarization and phase analysis of  $n \, \sim \, \text{He}\,4\, \text{s}$ 

Thick and thin zirconium targets saturated with deuterium were used for measuring.

The precise description of the phase analysis of n-He<sup>4</sup> scattering. Only two points of the most doubtful phase  $\delta_4$  were investigated by the satisfaction the assumption that the remaining phases  $\delta_0$  and  $\delta_4$  are sufficiently accurately known.  $\delta_1^*$  were investigated at neutron energies of 2,45 and 3,4 MeV. The energy E = 3,4 MeV: The asymmetry of scattering was measured for 7 angles of rotation  $\phi_0$  of the counters and measuring results are shown together in a table. The energy 2,45 MeV:  $\delta_1^*$  . By comparing the experimental asymmetry on the occasion of the scattering of neutrons with known polarization.  $\delta_1^*$  was compared with the computed asymmetry for different values of the phase  $\delta_1^*$ . Results found here confirm J.D. SEAGRAVE'S measuring of the phase  $\delta_1^*$  at  $E_1^*$  = 2,61 MeV.

(9 illustrations and 1 table.)

ASSOCIATION: not given.

PRESENTED BY: -

**SUBMITTED: 1. 10. 1956**.

AVAILABLE: Library of Congress.

CARD 2/2

AUTHOR TITLE LEVINTOV I.I., MILLER A.V., TARUKOV E.Z., SHAMSHEV V.N., PA - 2693 The Dependence of the Polarization of (D-D)-Neutrons on the Energy of Deuterons.

PERIODICAL

(Zavisimost' polyarisatsii (D+D)-meytronov ot emergii deytonov -Russian) Zhurmal Eksperim. i Teoret.Fiziki, 1957, Vol 32, Hr 2, pp 375-376 (USSR) Received 5/1957 Reviewed 6/1957

ABSTRACT

A method described by I.I.Levintov et al., Zhurneksp. i teor. fis, Vol 32 Nr 2, 274 (1957) facilitates the measuring of the polarization of (D+D) neutrons in dependence ondeuteron energy. The authors had at their disposal the acceleration tube of the Institute for Chemical Physics of the Academy of Science of the USSR., which furnishes deuterons with a maximum energy of 1800 keV. Polarization was measured on a thin and on a thick zircomium target. The situation of the rotation center of the counters and the values of the apertures of the 5 shannels of the discriminator are given. The values of asymmetry measured by means of the thick target are shown together in a table. The maximum polarization of (D+D) neutrons computed from these data is demonstrated in a diagram. The results thus found are to be regarded as "yield" of the polarization. Tais "yield" of the polarization of (D+D)-neutrons (at an angle of  $\Theta_n = 49^{\circ}$  in the laboratory system) at first (about from  $E_{\rm d}$ =0 to 0,9 NeV) increases considerably and later only slightly. For the second series of measurements a thin sireonium target ( 150 keV ) was used. In the case of a long duration of bombarding of the target with D-ions a renewed distribution of the deuterium layer takes place and the thickness of the target changes. There-

Card 1/2

The Dependence of the Polarization of (D+D)-Neutrons on PA - 2693 the Energy of Deuterons.

fore, the thin targets were exchanged after operation of from 20 to 30 hours. A further table contains the here measured values of asymmetry and a dagram illustrates the herefrom computed values of  $P_{\rm max}$  for (D+D)-neutron. The results found here, in spite of a very different method of measurements, agree with the results obtained by R.W. MEIER et al., listv.Phys. Acta, 27, 577 (195h). Polarization of the (D+D)-neutrons up to  $E_{\rm d}$ -1,8 MeV therefore depends monotoneusly on the deuteron energy. (2 ill. and 2 tables)

ASSOCIATION PRESENTED BY Institute for Chemical Physics of the Academy of Science of the USSR

SUBMITTED AVAILABLE

1.10.1956

Library of Congress

Card 2/2

56-34-4-53/60

AUTHORS:

Levintov, I. I., Miller, A. V., Shamshev, V. N.

TITLE:

The Measuring of the Polarization of (D+T)-Neutrons at a Deuteron Energy of 1800 keV (Izmereniye polyarizatsii (D+T)-neytronov pri energii deytronov 1800 keV)

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958. Vol. 34. Nr 4. pp. 1030 - 1032 (USSR)

ABSTRACT:

The reaction T (d, n) He<sup>4</sup> at a deuteron energy of E<sub>d</sub> = 107 keV passes the level 3/2 of the nucleus He<sup>5</sup> formed by deuterons. For this reason the neutrons obtained at this energy can not be polarized. At E<sub>d</sub> = 2 MeV already a noticeable amount (about 50 %) of higher states is obtained. The explanation of the polarization degree of the neutrons produced in this very important reaction would be of interest. The polarization of the (D + T) neutrons was measured according to an earlier described method (Ref 1); in which a thin tantalum target saturated with helium was used, the target being coolable to

Card 1/3

a large extent; thus the ion current could be increased to 60 microamperes. The control test consisted in turning the

56-34-4-53/60

The Measuring of the Polarization of (D+T) Neutrons at a Deuteron Energy of 1800 keV

counters in a direction vertical to the impinging neutron current. Also the possibility of the occurrence of a parasitary asymmetry was checked and it was found that the counting velocities in both positions of the counters coincide up to 0.5%. The results obtained for the azimuthal asymmetry of scattering in various angles of emission of the neutrons from the target are shown in a table: it holds that

				112;5	135
Pn(%)	7± 3	12+ 3	10+ 3	2 <u>+</u> 3	0 <u>+</u> 5

With increasing energy of the deuterons polarization will increase as well. The determination of the degree of polarization of the neutrons with a neutron energy of about 8 MeV, where the existence of a resonance is assumed, would be of especial interest. At present the author measures the polarization of the neutrons originating from the reaction D(T\_n)He<sup>4</sup>, for greater deuteron energies. There are 1 table and 3 references, 2 of which are Soviet.

Card 2/3

56-34-4-53/60

The Measuring of the Polarization of (D+T)-Neutrons at a Deuteron Energy

of 1800 keV

ASSOCIATION: Akademiya nauk SSSR

(AS USSR)

SUBMITTED:

January 18, 1958

1. Neutrons-Polarization

Card 3/3

25183 8/056/61/040/006/004/031 B102/B214

24.6500

AUTHORS:

Levintov, I. I., Trostin, I. S.

TITLE:

Neutron polarization in a reaction  $c^{12}(d,n)N^{13}$ 

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki,

v. 40, no. 6, 1961, 1570 - 1571

TEXT: The authors measured the amplitudes of the scattering asymmetry of the neutrons from the reaction C<sup>12</sup>(d,n)N<sup>13</sup> by means of a helium analyzer. The measurements were made for the neutron groups which are responsible for the formation of N<sup>13</sup> in the ground state. The 12-3-MeV neutron beam from the cyclotron of the ITEF AS USSR was fixed to the graphite target (thickness: 1.6 MeV according to the deuteron range) by a system of magnetic quadrupole lenses. The cross section of the beam on the target was 3-5 mm<sup>2</sup>, and the mean current was 1.5 to a. The helium proportional counters of the analyzer operated at 6.26 atm; this pressure was accurate to 1.0.5 mm Hg. The counters were continuously traversed, by a current of technically pure helium (purity 99.8%, flow rate 40 cm<sup>2</sup>/sec).

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25183 8/056/61/040/006/004/031 B102/B214

Neutron polarization in a reaction.

The plane of the helium analyzer (a battery of three counters) was perpendicular to the reaction plane. The target was at a distance of 150 mm from the axis of the pump. The pump axis passed through the center of the effective counter body whose length could be varied (between 15 and 25 mm) according to the angle of emission of the neutrons. The correction for the observed asymmetry of the anisotropic distribution of the neutrons was about 2 - 3%. The recoil nuclei of helium that were recorded could be traced back as due to neutrons of  $E > 0.8 E_{\rm max}$  ( $E_{\rm max}$ ) the maximal energy for the given angle of observation). There were no neutrons in this range which were related to an  $E_{\rm max}$  production in an excited state, i.e. in fact only such neutron groups were measured which were emitted on the production of ground state  $E_{\rm max}$  in an energy interval of the deuterons determined by the thickness of the target ( $E_{\rm max}$ ). The background did not exceed 10 - 1% and was eliminated by special measurements. The analyzer counters were calibrated for neutrons of the reaction under investigation for an angle of emission  $E_{\rm max}$  and  $E_{\rm max}$  the polarization was calculated from the asymmetry by using Seagrawe phases

Card 2/4

25183 \$/056/61/040/096/004/031 B102/B214

Neutron polarization in a reaction ...

The values obtained for the neutron for the scattering of neutron by He4. polarization are given in the Table; they are shown in a figure for  $E_d = 11.8 \pm 0.8$  Mev. The positive values of the polarization are taken in the direction  $\vec{h} = \begin{bmatrix} k_n \vec{k_d} \end{bmatrix}$ .

9<sub>n</sub> (lab. syst.) deg 50 60 70 30 40 45 En (lab. syst.) Mev 11.4 11.2 10.9 10.8 10.6 10.3 9.92 9.54

36.4 33.1 11.7 12.8 21.6 0.

the authors thank the cyclotron team as well as F. A. Pavlovskiy and V. A. Smotryayev for help. There are 1 figure and 2 references: 1 Soviet-bloc and 1 non-Soviet-bloc. The reference to English-language publications reads as follows: J. D. Seagrave. Phys. Rev. 92, 1222, 1953.

SUBMITTED: December 28, 1961

Card 3/4

LEVINTOV, I.I.; TROSTIN, I.S.

Neutron polarization in the C12(d, n)N13 reaction. Zhur. eksp. i teor. fiz. 40 no.6:1570-1571 Je '61. (MIRA 14:8)
(Nuclear reactions)
(Neutrons—Scattering)

KANAVETS, V.P.; LEVINTOV, I.I.; MOROZOV, B.V.

Limit values of the amplitude of  $\mathcal{N} \stackrel{t}{=} p$ -scattering. Zhur.eksp.1 teor.fis. 41 no.1:146-153 Jl '61. (MIRA 14:7)

1. Institut teoreticheskoy i eksperimental'noy fiziki AM SSSR. (Mesons—Scattering)

# TROSTIN, I.S.; SMOTRYAYEV, V.A.; LEVINTOV, I.I.

Neutron polarization in the reaction T (d, n) He4. Zhur.eksp.i teor.fiz. 41 no.3:725-727 S '61. (MIRA 14:10)

1. Institut teoreticheskoy i eksperimental'noy fiziki AN SSSR. (Neutrons—Scattering) (Nuclear reactions)

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24.6700

AUTHOR: Levintov, I. I.

Polarization and charge exchange in super high-energy up - scattering

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42, no. 1, 1962, 191-195

TEXT: If the exchange cross section in  $\neg p$ -scattering approaches  $(\Delta^2, \omega) \neq 0$  for  $E \to \infty$ , then the limiting value of the polarization will be  $|P_{\infty}| \langle [\sigma_{\infty}(\Delta^2, \infty)/c(L^2, \omega)]^{1/2}$  where  $(\sigma(\Delta^2, \omega))$  is the limiting cross section for elastic T + p scattering. In T + p and T + p scattering  $P_{\infty}$  has the same modulus but different sign. If  $(\sigma(\Delta^2, \omega)) = 0$  then  $P_{\infty} = 0$ . The cross sections of the charge exchange reactions  $T + p \to T + p$  are connected with  $T + p \to T + p$  are  $T + p \to T + p$ . The superscript Card  $T + p \to T + p$ .

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Polarization and charge exchange in ...

denotes half the difference or half the sum of the corresponding values for the scattering of  $\pi^+$  or  $\pi^-$  from protons. The relationship between  $k^{-1}g^-$ ,  $k^{-1}h^-$  and  $k^{-1}g^+$ ,  $k^{-1}h^-$  at high energies is explained by the dispersion relations by G. F. Chu, M. L. Goldberger, F. E. Low and J. Nambu (Phys. Rev., 106, 1337, 1958).

$$g^{\pm} = \frac{(W+M)^{3} - \mu^{3}}{16\pi W^{3}} \left[ A^{\pm} + (W-M)B^{\pm} \right] + \left( 1 + \frac{2\Delta^{3}}{A^{3}} \right) \frac{(W-M)^{3} - \mu^{3}}{16\pi W^{3}} \left[ -A^{\pm} + (W+M)B^{\pm} \right],$$
and
$$-h^{\pm} = \frac{2\Delta}{A} \sqrt{1 + \frac{\Delta^{3}}{A^{3}}} \frac{(W-M)^{3} - \mu^{3}}{16\pi W^{3}} \left[ -A^{\pm} + (W+M)B^{\pm} \right].$$
(4),

 $(v = E_{1ab} - h^2 M^{-1}, E_{1ab}$  is the meson energy in the laboratory system.)

Card 2/6

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S/056/62/042/001/031/048 B125/B102

Polarization and charge exchange in ...

M and are the masses of the nucleon and meson,

 $W^2=N^2+2+k^2+2$  /(...<sup>2</sup>+k<sup>2</sup>)( $N^2+k^2$ ) is the square of the total energy in the center-of-mass system (? = c = 1). From the expressions

$$\operatorname{Re} Z^{-}(v, \Delta^{2}) - \frac{2}{\pi} \operatorname{P} \int_{0}^{4} \frac{\operatorname{Im} Z^{-}(v', \Delta^{2}) \, v' \, dv'}{v'^{4} - v^{4}} = \operatorname{Re} Z^{-}(v_{0}, \Delta^{2}) -$$
 (10)

 $-\frac{2}{\pi}P\int_{\frac{\pi}{2}}^{\infty}\frac{\mathbf{v}_{0}^{2}\operatorname{Im}Z^{-}(\mathbf{v}',\Delta^{2})\,d\mathbf{v}'}{(\mathbf{v}'^{2}-\mathbf{v}_{0}^{2})\,\mathbf{v}'}=p\left(\varepsilon,\Delta^{2}\right),$ 

and

 $v \operatorname{Re} Z^{*}(v, \Delta^{2}) = \frac{2}{\pi} \operatorname{P} \int_{0}^{\epsilon} \frac{\operatorname{Im} Z^{*}(v', \Delta^{2}) v'^{2} dv'}{v'^{2} - v^{2}} = v_{0} \operatorname{Re} Z^{*}(v_{0}, \Delta^{2}) - \frac{2}{\pi} \operatorname{P} \int_{0}^{\infty} \frac{v_{0}^{2} \operatorname{Im} Z^{*}(v', \Delta^{2}) dv'}{v'^{2} - v_{0}^{2}} = q(\epsilon, \Delta^{2}).$  (11)

Card 3/6

S/056/62/042/001/031/048 B125/B102

Polarization and charge exchange in ...

for the asymptotic behavior of  $\operatorname{ReZ}^{\pm}$  and  $\operatorname{ImZ}^{\pm}$  at  $v_0 \rightarrow \infty$ 

$$h^{-1}\operatorname{De} g^{+}(\infty, \Delta^{0}) = 0. \tag{12}$$

$$k^{-1} \operatorname{Re} g^{+}(\infty, \Delta^{2}) = 0,$$
  
 $k^{-1} \operatorname{Im} g^{-}(\infty, \Delta^{2}) = 0,$  (13)

$$\int_{0}^{\infty} k^{-1} \operatorname{Im} g^{-} dk < \infty, \tag{14}$$

and analogous relations for k-1 h follows for the asymptotic properties of the amplitude for k-wand /2 .... The following two cases are possible: if the charge exchange cross section per unit interval of the square of the transferred momentum approaches zero at high energies, then  $k^{-1}Reg^{-}(\infty, c^{2}), k^{-1}Reh^{-}(\infty, c^{2}) = 0$  (15) and  $P_{\pm} = 0.2$ ). With  $(-, c^{2}) \neq 0, k^{-1}Reg^{-}(\infty, c^{2}) = k^{-1}Reg^{-}(\infty, c^{2}) = k^{-1}Reg^{-}(\infty, c^{2}) \neq 0$  (16). Similar relations hold for  $k^{-1}Reh_{\pm}(\infty, c^{2})$ . From (16) (13) the author obtains after some intermediate calculations: Card 4/6

CIA-RDP86-00513R000929620004-9" **APPROVED FOR RELEASE: 07/12/2001** 

34013 \$/056/62/042/001/031/048

Polarization and charge exchange in ...  $P_{s}^{2}((\sigma_{\Gamma})_{tot}/\sigma_{elast} = (\sigma_{\pi})_{g} + (\sigma_{\pi})_{h}/\sigma_{elast}$  (20) for the square of the extremal polarization averaged over the scattering cross section.  $(\mathcal{G}_{n})_{g,h}$  are the portions of the total cross section of charge exchange that are related with  $(Re\ g)^2$  and  $(Re\ h)^2$  at very high energies. No reliable data are as yet available on the total cross sections of charge exchange at energies of some Bev. The estimate  $(6\pi)_g = 8\pi/k^2 \text{Re g d}(\Delta^2) \lesssim 2 \cdot 10^{-29} \text{ cm}^2$  which is exceeded by  $(6\pi)_h$  also at high energies follows from the optical model. Then i P? < 64. Charge exchange does not always vanish with vanishing polarization. The change in the spin direction in the scattering of from polarized protons does not always disappear at high energies (if  $6\pi(\sim, L^2) = 0$ ). (13), (14) and the equations following therefrom hold for the transfer of arbitrarily large, finite momenta and also if the energy tends to ... A private communication made by N. G. Birger is

34013

Polarization and charge exchange in ... S/056/62/042/001/031/048 B125/B:02

mentioned. I. Ya. Pomeranchuk, K. A. Ter-Martirosyan, A. F. Grashin, and F. A. Pavlovskiy are thanked for critical remarks. There are 5 references; 2 Soviet and 4 non-Soviet. The four references to English-language publications read as follows: G. F. Chew, M. L. Goldberger, F. E. Low, J. Nambu, Phys. Rev., 106, 1337, 1957; A. C. Finn. Phys. Rev., 119, 1786, 1960; D. Amati, M. Fierz, W. Glaser. Phys. Rev. Lett., 4, 89, 1960; L. Wolfenstein. Phys. Rev., 92, 123, 1953.

ASSOCIATION: Institut teoreticheskoy i eksperimental'noy fiziki
Akademii nauk SSSR (Institute of Theoretical and Experimental
Physics of the Academy of Sciences USSR)

SUBMITTED: July 17, 1961

1137

Card 6/6

L 10197-63

EMP(q)/EMT(m)/BDS--AFFTC/ASD--JD/HW-2

ACCESSION NR: AP3000030

8/0056/63/044/005/1437/1441 64

AUTHOR: Levintov, I. I.; Okorokov, V. V.; Smotryayev, V. A.; Tolchenkov, D. L.; Trostin, I. S.

TITLE: Gross structure of the neutron energy spectrum and polarization in (d, n) reactions on nuclei of intermediate mass

SOURCE: Zhurnal eksper. i teoret. fiziki, v. 44, no. 5, 1963, 1437-1441

TOPIC TAGS: neutron spectra, gross structures, stripping reactions, neutron polarization

ABSTRACT: With an aim at obtaining data on gross structures in stripping reactions involving neutrons, a study was made of the spectra of neutrons produced in (d, n) reactions on neutral Co, fe; Mi, and Cu nuclei, for deuteron energies of 12.1 plus or minus 0.4 MeV and for a neutron emission angle 10° in the laboratory system. Proof that the narrow levels forming a group with a gross peak actually have the same spin and parity would be of particular importance for a check on nuclei formed in specific stripping reactions. To this end, the

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L 10197-63 ACCESSION NR: AP3000030 3

polarization and angular distribution of neutrons of the main gross peaks were also investigated for the Co(d,n)Ni and Fe (d, n) reactions. A time-of-flight technique was used with a multichannel time analyzer of ranosecond range, operating on a vernier-scale principle. A distinct gross structure was found to be present in the neutron spectra. Whereas the proton spectra of Schiffer et al (Phys. Rev. v. 115, 427, 1959) contain several peaks of approximately the same height, the neutron spectra obtained here contain along with peaks of comparatively small height one peak with height several times that of the others. Some relation is found between the extent to which the proton shells are opulated and the intensity of the proton spectra. The polarization angle was found to be about 11 and 7% for the Co(d,n)Ni and Fe(d,n)Ni reactions, respectively, and the angular momentum of the captured proton was greater than or equal to 3. On the whole, the obtained experimental data agree with the views on the existence of gross peaks in the neutron spectra from the (d, n) reactions for which definite quantum numbers can be assigned. "The authors express their deep gratitude to the cyclotron crew of the Institute of Theoretical and Experimental Physics for the faultless operation of the accelerator and to V. S. Repin, I. V. Halyutin, and I. I. Mitrofanov for aid in the measurements." Original article has 4 figures.

Cord 2/32

L 10200-63

HAT(m)/BDS--AFFTC/ASD

ACCESSION NR: AP3000031

8/0056/63/044/005/1442/1444

AUTHOR: Levintov, I. I.; Pavlosvskiy, F. A.

TITLE: Attempt at detection of the polarization of recoil nuclei in stripping

reactions

SOURCE: Zhurnal eksper. i teoret. fiziki, v. 44, no 5, 1963, 1442-1444

TOPIC TACS: Stripping reactions, recoil nuclei, Gamma background

ABSTRACT: The polarization of Li-8 nuclei from the Li-7 (p,d) reaction was determined from the asymmetry of their Beta decay. The deuteron energy was 10 MeV and the extracted beam from a cyclotron was used. This reaction was chosen in view of the possibility of using Alpha-Beta coincidences in the measurement of the Beta-decay asymmetry, in order to decrease the background. Muclei emitted from the target were accumulated in helium and carried by a fast stream of the gas in a strong magnetic field to well-shielded counters. The asymmetry observed was negligible and connected with the small effective value of the polarization of the nuclei, not being a consequence of depolarization effects. It is shown

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L 10200-63

ACCESSION NR: AP3000031

2

that the various usual sources of depolarization are little effective in this case. Asymmetry values were obtained for two intervals of the c.m.s. emission angles of the nuclei. Attempts to study polarization in other reactions were unsuccessful, owing to the Gamma background. "We thank B. M. Stasevich and the cyclotron crew under his direction for their assistance during all phases of the work." Original article has I figure and I formula.

ASSOCIATION: Institut teoreticheskoy i eksperimental noy fiziki (Institute of Theoretical and Experimental Physics)

SUBMITTED: 15Nov62 DATE ACQ: 12Jun63

ENCL: 00

SUB CODE: PH

NR REF SOV: 002

OTHER: 003

KANAVETS, V.P.; LEVINTOV, I.I.; MOROZOV, B.V.

Comparison of elastic pp- and pp-scattering based on a model with three Regge poles. Zhur. eksp. 1 teor. fiz. 45 no.3:679-683 S '63. (MIRA 16:10)

1. Institut teoreticheskoy i eksperimental'noy fiziki.
(Protons—Scattering) (Nuclear models)

KANAVETS, V.P.; LEVINTOV, I.I.; MDROZOV, B.V.; SHAPRANOV, M.D.

Polarization in pp-scattering at an energy of 8.5 Bev. Zhur. eksp. i teor. fiz. 45 no.4:1272-1275 0 163. (MIRA 16:11)

1. Institut teoreticheskoy i eksperimental'noy fiziki i Ob"yedinennyy institut yadernykh issledovaniy.

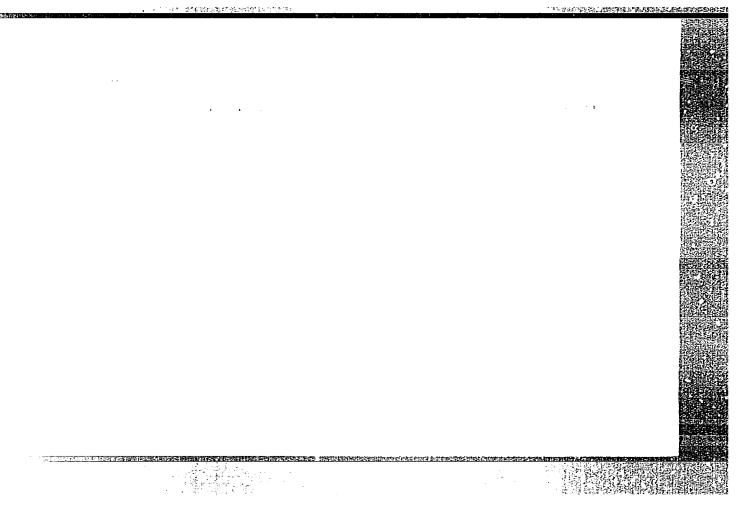
## LEVINTOV, I.I.

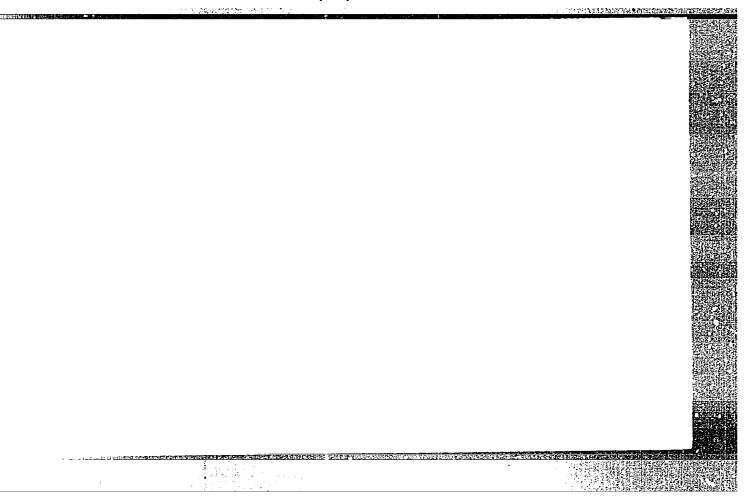
Calculating the real part of the scattering amplitude as the asymptotic behavior of the imaginary part. Zhur. eksp. i teor. fiz. 45 no.4:1275-1277 0 '63. (MIRA 16:11)

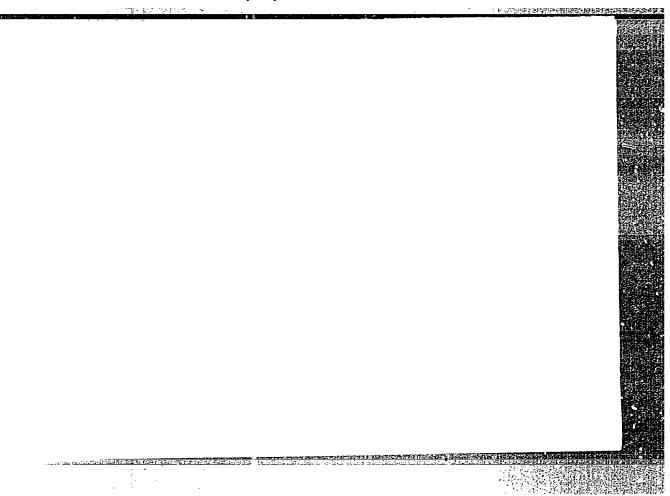
1. Institut teoreticheskoy i eksperimental noy fiziki.

## "APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929620004-9

L 41013-65 EWI(m)/T/EWA(m)-2	s/ <del>036</del> 7/65/ <del>90</del> 1/ <del>00</del> 1/ <del>0096</del> /0102	<b>ラ</b> ン 「	
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spin states. New cata presented in	n the present paper, however, require <del>[arization measurements at the initial</del>	ed a more	
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KANAVETS, V.P.; LEVINTOV, I.I.; MOROZOV, B.V.

Polarization in elastic proton-proton scattering at high energies. IAd. fiz. 1 no.1:96-102 Ja \*65. (MIRA 18:7)

l. Institut teoreticheskoy i eksperimental'noy fiziki Gesudarstvennoge komiteta po ispol'zovaniyu atomnoy energii SSSR.

## "APPROVED FOR RELEASE: 07/12/2001 CIA-RD

CIA-RDP86-00513R000929620004-9

LEVINION, SID,

AUTHOR:

Sergeyev, A.S., Docent

105-58-5-25/28

TITLE:

Dissertations (Dissertateii)

PERIODICAL:

Elektrichestvo, 1958, Nr 5. pp. 91-92 (USSR)

ABSTRACT:

For the Degree of Candidate of Technical Sciences.

At the Ural Polytechnic Institute imeni Kirov (Ural'skiy

politekhnicheskiy institut im. Kirova):
S.D.Levintov on June 27, 1949 "Electromechanic Transition Processes
in a Synchronous Motor in the Case of Periodic Load (of the Compressor Type)". Official opponents: N.S.Siunov, Professor. Doctor

of Technical Sciences, I.D. Urusov, Docent and A.T.Blazhkin,

Candidate of Technical Sciences.

I.S.Pinchuk on June 27, 1949 "Electromechanic Transition Processes in Asynchronous Motors". Official opponents: N.S.Siunov, Professor, Doctor of Technical Sciences, A.A.Yanko-Trinitskiy, Docent, Candi-

date of Technical Sciences and P.M. Chudnovskiy, Engineer.

I.D. Urusov on June 27 1949 "The Mechanical Strength of the Casing of Electric Machines Subjected to the Action of Electromagnetic Loads". Official opponents: I.B. Sokolovskiy, Doctor of Technical Sciences and M. V. Belyayev, Docent, Candidate of Technical Sciences.

Card 1/4

#### Dissertations

105 -58 -5-25/28

S.P.Sitnikov on March 6, 1950 "Some Problems Connected with the Theory of Aro-Extinguishing Devices". Official opponents: N.S. Siunov, Professor, Doctor of Technical Sciences, V.G. Stepanov, Docent, Candidate of Technical Sciences and V.M.Sin'kov, Docent, Candidate of Technical Sciences. D.M. Shakhray on June 26, 1950 "The Investigation of a Special System for the Electric Equipment of Dredges". Official opponents: I.B. Sokolovskiy, Professor, Doctor of Technical Sciences, M.V. Belyayev, Docent, Candidate of Technical Sciences and A. Ye. Tropp, Candidate of Technical Sciences. G.P.Kropachev on June 30, 1953 "Investigation of an Asynchronous Starter in Synchronous Machines with Salient Poles and Withou Starter Cage". Official opponents: N.S.Siunoz, Professor, Doctor of Technical Sciences, S.A. Volotkovskiy, Doctor of Technical Sciences and M.A.Pirumyan, Docent. V.P.Shasherin on January 18, 1954 "Some Problems of Cathode-Oscillographic Measurements when Testing High-Frequency Apparatus". Official opponents: N.S.Siunov, Professor, Doctor of Technical Sciences and V.G. Stepanov, Candidate of Technical Sciences. R.N. Urmanov on June 7, 1954 "Investigation and Calculation of Circuits with a Three-Phase Welding Arc". Official opponents: S.A. Volotkovskiy, Professor, Doctor of Technical Sciences and G.P.Mikhaylov, Professor, Doctor of Technical Sciences.

Card 2/4

#### Dissertations

105-58-5-25/28

At the Sverdlovsk Mining Institute imeni Vakhrushev (Sverdlovskiy gornyy institut im. Vakhrusheva):

I.P.Petrov on February 15, 1954 "Electric Locomotive for Pits with Repulsion Traction Motors for Single-Phase Currents of Normal Frequency". Official opponents: N.S.Siunov, Professor, Doctor of Technical Sciences and A.T.Blazhkin, Docent, Candidate of Technical Sciences.

At the Gor'kiy Polytechnic Institute imeni Zhdanov (Gor'kovakiy politekhnicheskiy institut im. Zhdanova):

S.N. Shevchuk on June 14, 1949 "Problems of Insulation against Loss of Heat in Electromotors of Metal-Working Machines". Official opponents: D.M. Morozov, Professor, Dostor of Technical Sciences, N.V. Shohedrin, Docent, Candidate of Technical Sciences and M.P. Shvakov, Engineer.

A the Tomsk Polytechnic Institute imeni Kirov (Tomskiy politekhnicheskiy institut im. Kirova)):

C.F.Pukhova on March 26, 1947 "On the Problem of the Automatic Re-Connection of Individual Lines in the Case of Electric Transmission with Bilateral Feed". Official opponents: V.A. Voronov, Professor, Doctor of Technical Sciences and I.D. Kutyavin, Candidate of Technical Sciences.

Card 3/4

#### Dissertations

105-58-5-25/28

A.H.Zhilin on April 26, 1950 "Transition Processes in Three-Fhase Circuits in the Case of Non-Simultaneous Phase Connection".

Official opponents: V.K.Shcherbakov, Professor, Dostor of Technical Sciences and Yu.Ye.Nebolyubov, Docent, Candidate of Technical Sciences.

V.A. Abakumov on June 30, 1950 "Automation of a Series-Wound Motor According to the Leonard Circuit with Shunt-Wound Generator".

Official opponents: I.A. Balashev, Professor, Doctor of Technical Sciences and L.I. Gandzha, Docent, Candidate of Technical Sciences.

V.U. Kostikov on March 13, 1954 "Methods of Determining Equivalent Specific Electric Conductivity". Official opponents: V.K. Shcherbakov, Professor, Doctor of Technical Sciences and V.N. Titov, Docent, Candidate of Technical Sciences.

#### AVAILABLE:

Library of Congress

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Card 4/4



LL71MTOV, S. D.

PA 164T19

USSR/Electricity - Synchronous Machines Jul 50 Salient-Pole Machines

"Determination of Angle  $\Theta$  in Salient-Pole Synchronous Machines," S. D. Levintov, Cand Tech Sci, Sverdlovsk Branch, All-Union Inst for Electrification of Agr

"Elektrichestvo" No 7, pp 64-65

Proposes nomographic method of determining angle  $\Theta$  according to current and phase, given quadrature-axis synchronous reactance of machine. Basis of this system is vector diagram for synchronous machine with given operating condition.

164T19

**APPROVED FOR RELEASE: 07/12/2001** 

CIA-RDP86-00513R000929620004-

LEVISTOV, S.D., kandidat tekhnicheskikh nauk.

Effecting self-synchronization of generators of rural hydroelectric power plants. Mekh, i elek.sel'khoz. no.4:71-75 Ap '53. (MLEA 6:5)

l. Sverdlovskiy filial Vsesoyusnogo nauchno-issledovatel'skogo instituta elektrifikatsii sel'skogo khozyaystva. (Dynamos)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929620004-9"

LEV HTOW, S.D., kandidat tekhnicheskikh nauk; TAGIROV, M.A., inzhener

Static characteristics of agricultural load. Hauch.trudy VIESKH no.1:99-124 '54. (MLRA 8:11)

1. Sverdlovskiy filial Vsesoyusnogo Instituta elektrifikatsii sei!skogo khosyaystva

(Electricity in agriculture)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929620004-9"

#### "APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929620004-9

LIVINOV. D. D.

AID P - 466

Subject

: USSR/Electricity

Card 1/1

Pub. 27 - 29/34

Author

: Levintov, S. D., Kand. of Tech. Sci., Sverdlovsk

Title.

Conference on Scientific and Technical Problems of Electrification in Agriculture. (Current News)

Periodical

: Elektrichestvo, 7, 91-92, J1 1954

Abstract

In April 1954 a conference was held in Sverdlovsk on problems of electrification of agriculture. The conference was organized by the oblast section of VNITOE (All-Union Scientific Society of Power Engineers and Technicians).

Institution: Sverdlovsk Section of VNITOB

Submitted

: No date

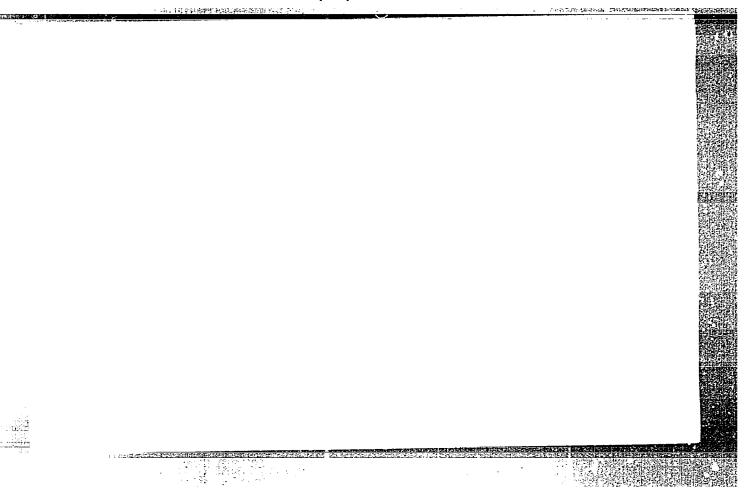
CIA-RDP86-00513R000929620004-9" APPROVED FOR RELEASE: 07/12/2001

### "APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929620004-9

OVOZDEV, Vlas Semenovich, kand.tekhn.neuk; VAKHRAMEYEV, Boris Alekseyevich, insh.; CHEMAN, Avrean L'vovich, insh.; KOSTIN, Konstantin Fedorovich, insh.; LEVINTOV, Semmall Davidovich, kand.tekhn.neuk; TARASOV, A.S., insh., retsensent; TERMAKOV, N.P., tekhn.red.

[The equipment of rural hydroelectric power plants] Oborudovanie sel'skikh gidroelektricheskikh stantsii. Isd. 2-oe, perer. Pod. obshchei redektsie! V.S.Gvosdeva, Moskva, Gos.,nauchno-tekhn, izd-vo mashinostroit, lit-ry, 1957. 423 p.

(Hydroelectric power stations)



Craphic method for calculating the mechanical characteristics of d.c. motors associated with complicated connection circuits. Izv. vys. ucheb. sav.; elektromekh. 1 no.3:102-110'58. (MIRA 11:6)

1. Kafedra elektrofikatsii promyshlemnyka predpriyatiy Chelyabin-skogo politekhnicheskogo instituta.
(Electric machinery—Direct current—Oraphic methods)

SOV/144-58-8-13/18

AUTHOR: Levintov, S.D., Candidate of Technical Sciences, Docent

TITIE: Engineering Method of Calculation of the Mechanical Characteristic of a Short-circuited Asynchronous Motor

(Inzherernyy metod rascheta mekhanicheskoy kharakteristiki

asinkhronnogo korotkozamknutogo dvigatelya)

PERIODICAL: Izvestiya Vysshikh Uchebnykh Zavedeniy, Elektromekhanika,

1958, Nr 8, pp 102 - 107 (USSR)

ABSTRACT: Current methods of calculation of the mechanical charac-

teristics of short-circuited asynchronous motors, taking into consideration the influence of the magnetic saturation of the steel and the displacement of the current in the rotor (Refs 2, 3, 5, 6), are complicated. Some of these methods require knowledge of various values not contained

in catalogues, e.g. of the height of the rotor slots

(Ref 6). In text and reference books, the Kloss formula is recommended, which involves considerable errors in the range of high slip values. In this paper, an attempt is made to give a simple approximate method of calculation

of the mechanical characteristic of a short-circuited asynchronous motor with deep slots by means of which it

Card1/3 would be possible to determine sufficiently accurately the torques for the entire zone of the slips of the motor;

SOV/144-58-9-13/18
Engineering Method of Calculation of the Mechanical Characteristic of a Short-circuited Asynchronous Motor

for this, only a minimum of catalogue data are required. The here presented method of calculation is based on the simplified equation:

$$\frac{M}{M_{k}} = \frac{2}{\frac{s}{s_{k}} + \frac{s_{k}}{s}}$$

$$(1)$$

where M<sub>k</sub> and s<sub>k</sub> are the critical torques and the critical slip, M is the torque corresponding to the slip 3. In Figure 8, experimental data are compared with data calculated by means of the here presented method. It can be seen that the greatest difference tetween the torques determined by means of Eq (5), p 105, and those determined experimentally does not exceed 5 - 6%. The here presented method is suitable for card2/3 calculating with adequate accuracy the mechanical

S0V/144-58-8-13/18

Engineering Method of Calculation of the Mechanical Characteristic of a Short-circuited Asynchronous Motor

characteristics of short-circuited asynchronous motors and is applicable to various calculations of asynchronous drives. A calculation example is included. There are 8 figures, and 8 Soviet references.

ASSOCIATION: Kafedra elektrifikatsii promyshlennykh predpriyatiy Chelyabinskogo politekhnicheskogo instituta (Chair for Electrification of Industrial Undertakings of Chelyabinsk Polytechnical Institute)

SUBMITTED: May 23, 1958

Uard 3/3

# LYULICHEY, A.N. LEVINTOVICH, E.V.

Determining the velumetric weight of refractories by gamma-ray absorption. Ogneupory 23 no.7:319-324 158.

(MIRA 11:9)

1. Vsesoyusnyy nauchno-issledovatel'skiy institut ogneuporov.
(Refractory materials--Testing)
(Gamma rays--Industrial applications)

LEUINTON ST.

110-3-22/22

AUTHOR: Levintov, S.D., Candidate of Technical Sciences.

TITLE: The Design of Starting Resistances for d.c. Motors

(Raschet puskovykh soprotivleniy dlya elektrodvigateley

postoyannogo toka)

PERIODICAL: Vestnik Elektropromyshlennosti, 1958, Vol.29, No.3, pp. 79 - 80 (USSR).

ABSTRACT: The total resistance required in the armature circuit during starting can easily be calculated for all types of d.c. motor. However, division of the starting resistance into steps can be done analytically only for independently-excited motors. For series- and compound-wound motors, grading must be decided graphically. The article describes and exemplifies in Fig. 1 a graphical procedure which makes use of the relationship between the motor torque and the current.

There are 3 figures, 3 Russian references.

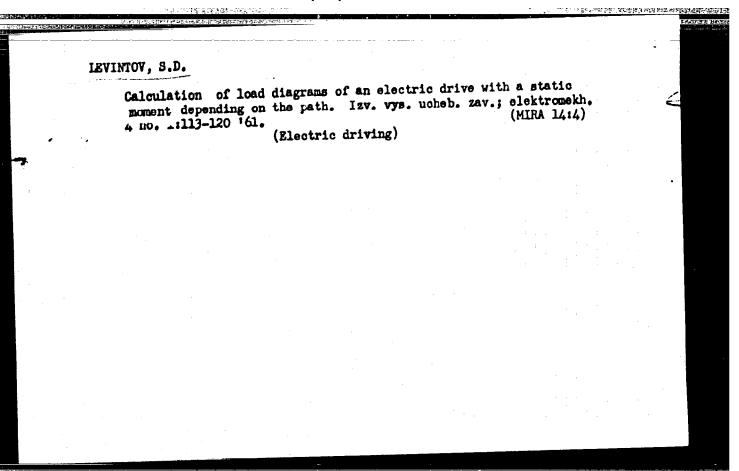
ASSOCIATION: Chelyabinsk Polytechnical Institute (Chelyabinskiy

politekhnicheskiy institut)

AVAILABIE: Library of Congress

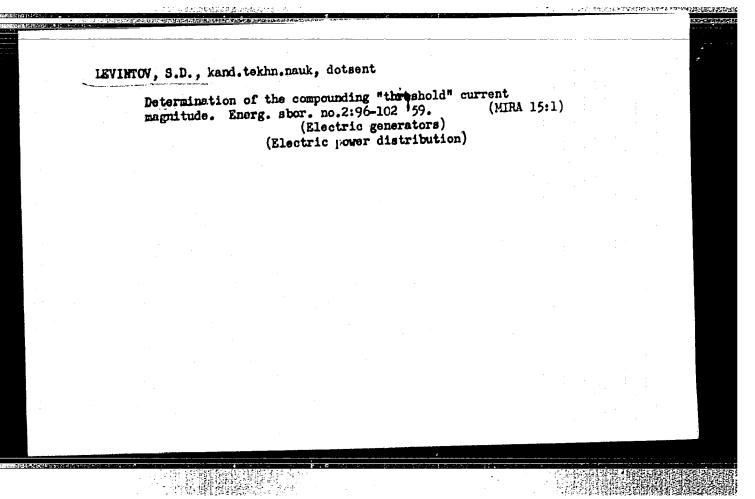
Card 1/1 1. Electric motors-Torque 2. Electric motors-Current

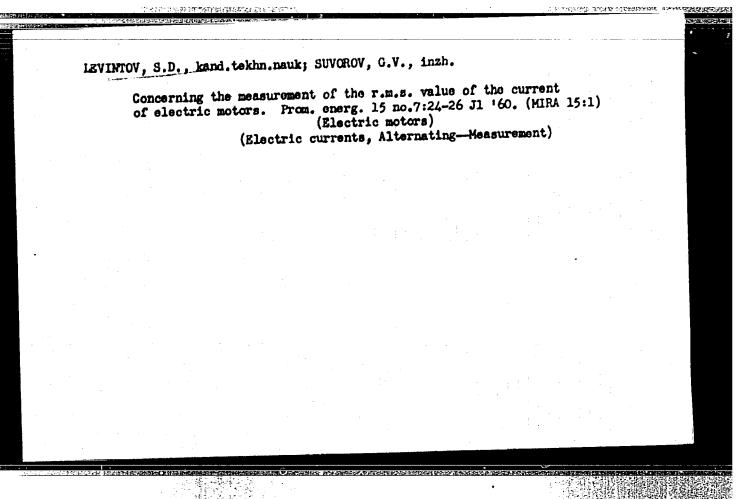
USCOMM-DC-54708



LEVINTOV, S.D. kand.tekhn.nauk, dotsent

Transient processes in the synchronous drives of piston machines. Energ. sbor. no.2:55-95 '59. (MIRA 15:1) (Electric motors, Synchronous)





LEVIHTOV, S.D., kand.tekhn.nauk, dotsent; KRAVTSOV, N.Ya., inzh.

Rating the power of the motor of a pieroing mill. Vest.mash.
42 no.4:50-51 Ap 162. (MIRA 15:4)
(Pipe mills)

LEVINTOV, Samuel' Davidovich, kand.tekhn.nauk, dotsent

Calculation of the load diagram of an electric dirve with static moment and moment of inertia dependent on the path. Izv.vys.ucheb. sav.; elektromekh. 5 no.4:429-436 62. (MIRA 15:5)

1. Kafedra elektrooborudovaniya promyshlennykh predpriyatiy Chelyabinskogo politekhnicheskogo instituta. (Electric driving)

LEVINTOV, S.D., kand. tekhn. nauk, dotsent; KRAVTSOV, N.Ya., insh.

Loads of the electric drives of the auxillary mechanisms of a blooming mill. Izv. vys. ucheb. zev.; energ. 7 no.6240-46 Je 164 (MIRA 17:8)

1. Chelyabinskiy politekhnicheskiy institut. Predstavlena kafedroy elektroprivoda i avtomatizatsii promyshlennykh ustanovok.

## "APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929620004-9

LEVINTOV, Samuel ! Davidovich, Rand. tekhn. nauk, dotsent

Second edition of V.P. Andreev and IU.A. Sab nin's book "Principles of electric drives". Izv. vys. ucheb. zav.; elektromekh. 7 no.8:1037-1040 '64. (MTRA 17:10)

1. Zaveduyushchiy kafedroy elektroprivoda i avtomatizatsii promyshlennykh ustanovok Chelyabinskogo politekhnicheskogo instituta.

## "APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929620004-9

Industrial it electric locomotive vital resenerative braking.

Inv. vys. ucheb. vav.; gor. zhar. & no.1:106-111 105.

(MHRA 16:3)

1. Chelyabinskiy politekhnicheskiy institut. Rekonendowna kafedroy elektroprivoda i avtomatizatsii prozveklennykh ustanovek.

LEVINTOV, S.D., kand. tekhn. nauk; POLYAKOV, G.V., inah.

Recuperation of electric power in the transport systems of open # pit mines. Prom. energ. 20 no.5:4-9 My \*65. (MIRA 18:7)

BROVMAN, M.Ya.; VYDRIN, V.N.; YERMKHIN, F.K.; KISLYUK, V.A.; KRAYNOV, V.I.; LEVINTOY, S.D.; RIMEN, V.Kh.; SEREBRYAKOV, A.N.; SHEYDER, B.E.

Method of controlling the tension in continuous rilling mills.

Stal' 25 no.7:629-631 Jl '65. (MIRA 18:7)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929620004-9"

# LEVINTOVA, S.Ye.; MAKHTINGER, A.I.

Materials for the study of the higher nervous function in children in rheumatism; preliminary communication. Vopr. pediat. 20 no. 5: 14-18 Sept-Oct 1952. (CIML 23:3)

1. Of the Department of Higher Bervous Activity (Head -- Prof. N. I. Krasnogorskiy, Active Member AMS USSR) and of the Clinic for Older Children (Scientific Supervisor -- Prof. A. B. Volovik), State Scientific-Research Pediatric Institute (Director -- A. L. Libov).

KRASHOGORSKIY, H.H.; LEVINTOVA, S.Ye.

Unconditioned radiation reflexes in rheumatism in children.

Pediatria no.5:27-28 8-0 '54.

(RHEUMATIC HEART DISEASE, in infant and child.

unconditioned radiation reflexes in)

#### LEVINTOVA, S.Ye.

Some problems in establishing a regimen in nurseries for children with chronic dysentery. Vop.okh.mat. i det. 1 no.2:74-76 Mr-Ap '56.
(MLRA 9:9)

1. Is laboratorii vysshey nervnoy dyatel'nosti (zav.-deystvitel'nyy chlen AMN SSSR prof. N.I.Krasnogorskiy) Gosudarstvennogo
nauchno-issledovatel'skogo pediatricheskogo instituta (dir.-prof.
A.L.Libov) Leningrad.

(CHILDREN-DISEASES) (DIET) (DISENTERY)

1170、自己2003年代的原本的政策。1986年代的

MAKHTIMOER, A.I., doktor meditsinskikh nauk; LEVINTOVA. S.Ye., kandidat meditsinskikh nauk; SINEVA, T.H.; MEL'HIKOVA, H.A.

Unconditioned secretion of the salivary glands in cases infectious hepatitis (Botkin's disease). Vop.okh.mat. i det. 1 no.4;44-48
J1-Ag 156. (MLRA 9:9)

1. Is otdela vysshey nervnoy devatel nosti (sav. - devatvitel nyy chien AME BSSR prof. M.I.Krasnogorskiy) i kliniki starshego vozrasta (konsul tant - prof. A.B. Volovik) Gosudarstvennogo nauchno-issledovatel skogo pediatricheskogo instituta (dir. - prof. A.L. Libov) Leningrad.

(HEPATITIS, INFECTIOUS) (SALIVARY GLANDS)

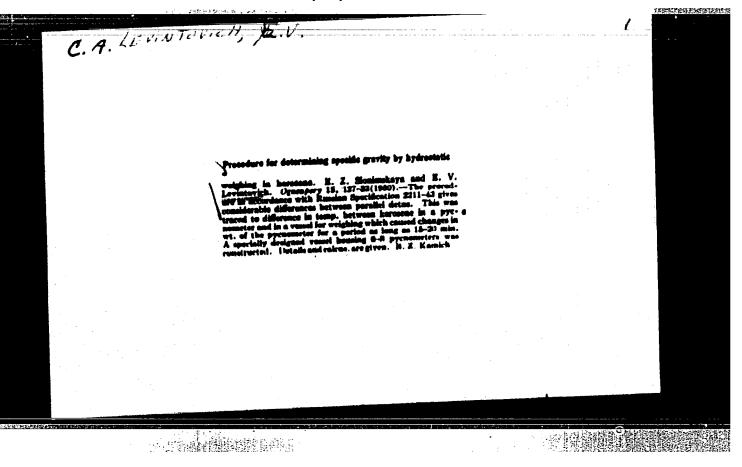
#### LEVINTOVA, S.Ye., dotsent

Conditioned reflex activity in children with recurrent rheumatic carditis and cardiac defects. Pediatriia 39 no.2:20-26 Mr-Ap '56.
(MIRA 9:8)

1. Is laboratorii vysshey nervnoy deyatel'nosti rebenka (sav. - deystvitel'nyy chlen AMN SSER prof. N.I.Krasnogorskiy) i kliniki starshego detstva (nauchnyy rukovoditel' prof. A.B.Volovik) Nauchno-issledovatel'skogo pediatrichaskogo instituta (dir. doktor meditsinskikh nauk A.L.Libov)

(RHEUMATIC HEART DISEASE, in infant and child, conditioned reflex funct. in (Rus))
(REFLEX, CONDITIONED, in rheum. heart dis. in child.(Rus))

# "APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929620004-9



#### "APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929620004-9

USER/Engineering - Refractories, Moisture Control

"Rapid Desermination of Moisture of Raw Materials and Intermediate products by the Endiation Drying Method," I. Ye. Dudayskiy, M. P. Dragilova, E. V. Levinovich, Khar'kev Inst of Refractories

"Ogneupory" No 8, pp 370-378

Describes method in which rapid transfer of large amounts of heat is realized by light radiation from incandescent heating spiral. Application of surface thermocouple in form of disk, which measures temp of sample dish bottom, provides for precise deth of drying end noment, preventing overheating of sample. \*otal time of deth is 5 min. Rethod has been used since 1951 at Plant imeni ordzhonikidze instead of carbide method.

PA 239763

DUDAYSKIY, I.Te.; LEVISTOVICH, E.V.; DRAOILEVA, M.P.

Rapid determination of porceity, moisture absorption and volume weight of refractory materials. Ogneupory 18 no.1:33-42 53.

(MIRA 11:10)

1.Thar'kovskiy institut ogneuporov.

(Refractory materials—Testing)

"APPROVED FOR RELEASE: 07/12/2001

DUDAYSKIY, 1.Ye.; LEVINTOVICH, Ye.V.; DRAGILEVA, M.P.

Method of rapid determination of the specific gravity of dinas bricks. Ognoupery 18 no.6:260-265 Je 153. (MIRA 11:10)

1. Khar kevskiy institut egneuperev.
(Firebrick) (Specific gravity)

